



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,256	02/27/2002	Raymond Jay Barry	2000-0241.02	2017

7590 07/10/2003

NEEDLE & ROSENBERG, P.C.
The Chandler Building, Suite 1200
127 Peachtree Street, N.E.
Atlanta, GA 30303-1811

EXAMINER

STEWART JR, CHARLES W

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/084,256	Applicant(s) Raymond Barry
	Examiner Charles Stewart, Jr.	Art Unit 2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 42-64 is/are allowed.
- 6) Claim(s) 65-74 is/are rejected.
- 7) Claim(s) 1-41 is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on Feb 27, 2002 is/are accepted or objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: approved disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

- 15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 4) Interview Summary (PTO-413) Paper No(s). _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

Art Unit: 2853

Detailed Action

Specification

1. The specification has been checked to the extend necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Independent claims 1 and 24 are objected to because of the following informalities, suggestions are provided where appropriate:

In claim 1, line 8, change "and" to --which--

In claim 24, line 18, change "and" to --which--

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 65-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akahira et al. (US 6,164,746) in view of Takahashi et al. (US 5,489,928)

Takahashi et al. discloses everything of the claimed invention including a method for fluid level management in a media coating system (fig. 10), wherein the media coating system has an applicator with a trough to contain the media coating fluid, a system for fluid level management in

Art Unit: 2853

a media coating system, wherein the media coating system has an applicator with a tough to contain the media coating fluid, and comprising the steps of:

determining media coating fluid level within the applicator against a predetermined upper refill limit and a predetermined lower refill limit (in terms of the liquid crystal compound 18 is filled in the gap between these glass substrates; see col. 10, lines 57-59);

determining whether a media coating operation is in progress (in terms of the resin later 3' can be formed by a coating method such as spin coating roller coating, bar coating, spraying, or dipping; see col. 9, lines 38-30).

However, Akahira et al. does not disclose transferring media coating fluid from a supply item to the trough of the applicator when the level of the media coating fluid is lower than the predetermined lower refill limit and a media coating operation is in progress; holding the media coating operation until the transferring step is accomplished; continuing a media coating operation when the level of the media coating fluid is lower than the predetermined upper refill limit but higher than the predetermined lower refill limit; transferring media coating fluid from a supply item to the trough of the applicator when the level of the media coating fluid is lower than the predetermined lower refill limit, or the media coating operation is accomplished; continuing a media coating operation when the level of the media coating fluid is higher lower than the predetermined upper refill limit but higher than the predetermined lower refill; transferring media coating fluid from a supply item to the trough of the applicator when the level of the media coating fluid is lower than the predetermined upper refill limit.

Art Unit: 2853

Nevertheless, Takahashi et al. disclose transferring media coating fluid (17) from a supply item to the trough of the applicator (54) when the level of the media coating fluid is lower than the predetermined lower refill limit and a media coating operation is in progress (see col. 7, lines 6-11); holding the media coating operation until the transferring step is accomplished (in terms of a stable liquid-repellent process could be carried out for a long period of time by providing the tank 83 with a hole for supplementing the liquid-repellent agent; see col. 10, lines 54-58); continuing a media coating operation when the level of the media coating fluid is lower than the predetermined upper refill limit but higher than the predetermined lower refill limit (see col. 12, lines 43-50); transferring media coating fluid from a supply item to the trough of the applicator when the level of the media coating fluid is lower than the predetermined lower refill limit, or the media coating operation is accomplished (see col. 4, lines 46-48); continuing a media coating operation (83) when the level of the media coating fluid is higher lower than the predetermined upper refill limit but higher than the predetermined lower refill (see col. 9, lines 19-27); transferring media coating fluid from a supply item to the trough of the applicator (309) when the level of the media coating fluid is lower than the predetermined upper refill limit (see col. 12, lines 43-50).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Akahira et al., by the aforementioned features of Takahashi et al., in order to that the direction of discharge of liquid droplets can be uniformized to accomplish recording of high quality, as taught by Takahashi et al. (see col 2, lines 33-35).

Art Unit: 2853

It is the Examiner's position that Akahira et al. disclose resuming the media coating operation (in terms of the coating is patterned into a desired shape by a photolithographic process; see col. 1, lines 34-36).

Allowable Subject Matter

5. Claims 42-64 are allowed.
6. Claims 1 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten because of the following informalities, suggestions are provided where appropriate including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

Claim 1 recites limitation in combination of a fluid level detection sensor located within the applicator, wherein the fluid level detection sensor measures whether the media coating fluid level within the trough of the applicator is either above or below a threshold position and generates an output signal; and a controller for receiving the output signal and controlling delivery of the media coating fluid from the supply item to the applicator as claimed in the combination of claims 1-23.

Claim 24 recites the limitation in combination of a detector having an input and output, wherein the input is electrically coupled to the output of the oscillator and the connecting end of the first probe for receiving signal related to the measured impedance between the measuring end of the probe and the measuring end of the second probe and the output generated an output signal as claimed in the combination of claims 24-41.

The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2853

Claim 42 recites the limitation in the combination of selectively transferring media coating fluid from a supply time to the trough of the applicator depending on the level of the media coating fluid against the predetermined upper refill limit and the predetermined lower refill limit and the status of the media coating system as claimed in the combination of claims 42-56.

Claim 57 recites the limitation in the combination of means for selectively transferring media coating fluid from a supply item to the trough of the application depending on the level of the media coating fluid against the predetermined upper refill limit and the predetermined lower refill limit and the status of the media coating system as claimed in the combination of claims 57-64.

While Akahira et al. '746 teach a similar concept of liquid crystal compound 18 is filled in the gap between these glass substrates in general manner (see col. 10, lines 57-59). Akahira et al. does not teach the claimed combination of a controller for receiving the output signal and controlling delivery of the media coating fluid from the supply item to the applicator in a precise manner as claimed.

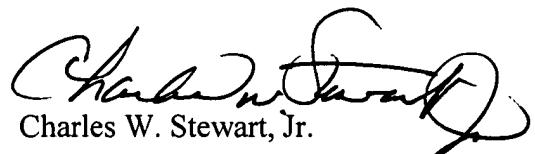
Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Charles Stewart whose telephone number is (703) 308-7252.

The Examiner can normally be reached on Monday-Friday from 8:30 a.m to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Russ Adams, Art Unit 2853, can be reached on (703) 308-2847. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432. Any inquiry of a

Art Unit: 2853

general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Charles W. Stewart, Jr.

June 25, 2003